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Wildlife conservation in Australia: an inland view

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The interior of Australia is a land of soil deficiencies. If it isn't lack of nutrients that dominates biological activity in a particular inland environment, then it's lack of soil moisture. Either way, the arid and semi-arid regions of our continent are characterized by low and irregular primary productivity, and it is in agreeing with that fundamental point made by Recher (1990) that I wish to begin my response to his important article.

Most conservation problems in inland Australia stem from the fact that people of European origin have either been ignorant of the edaphic limitations to productivity or have wilfully ignored them. In the arid zone, virtually no vegetation has been cleared, but even so the record of mammalian extinctions is the worst of any climatic zone on the continent (Burbidge and McKenzie 1989). Discussion abounds on precise causes, but the ultimate reason for this sorry record is almost certainly the poverty of primary production (Morton 1990). These extinctions came about because many medium-sized species were dependent upon scattered patches of fertile and productive country which were invaded by stock and rabbits brought by the Europeans; during the inevitable dry times, populations of the native species were extinguished under this pressure and the added impact of introduced predators (Morton 1990). Contractions in range among mammals continue. The situation with birds is unclear but is a matter of great concern, and invertebrate faunas have almost certainly undergone major changes.

What can we do about all this? One thing seems certain to me, and it reiterates another vital point made by Recher (1990): that we will halt the decline only through intelligent land management on a national scale. Piecemeal and kneejerk reactions to perceived crises will continue to divert our attention away from the long, hard grind that is necessary for the conversion of our approach to Australia's lands and resources from that of cavalier disregard to one of sustainability.

It was with this attitude in mind that staff from the National Rangelands Programme within CSIRO's Division of Wildlife and Ecology recently published "A policy for the future of Australia's rangelands" (Foran *et al.* 1990). The policy did not consider state boundaries and was therefore national in approach, as three-quarters of Australia can be considered to be rangeland (i.e., country that is not suitable for agriculture and is used principally for grazing). The document argues that the economics of grazing must be integrated with conservation and other uses. It starts with the problem of highly variable production, points out that the future of the biota of this vast region depends utterly on a sustainable approach to grazing, and shows that this approach is also necessary for the long-term survival of the pastoral industry itself. It emphasizes other critical issues identified by Recher (1990): that degradation of soils is a massive and crucial problem; that conservation by reservation alone will be insufficient; and that principles of wildlife management must be extended to all lands. The

document reflects that belief of scientists working in the Rangelands Programme that, after 30 years of research, it was just not good enough for results to be languishing in scientific journals when their implications for sound pastoral and environmental management were manifest.

The reception of the document was, overall, positive. We distributed 2 000 copies to a wide variety of people and agencies, and inquiries from country people in particular were intense. The first print run has been exhausted, and another is just being posted out. There were some negative responses, however. The National Farmers Federation attacked CSIRO for releasing a "policy" document, arguing that the organization has no place in setting policy. Clearly, the Federation disagreed strongly with the document's forthright attack on drought relief for pastoralists in the rangelands. I don't believe that the hostile reception from some quarters will prevent CSIRO from releasing other documents on similar topics in the future.

It is because of this experience that I must disagree slightly with Recher (1990) on one point, and that concerns his pessimistic tone. In the case I have described, Australian scientists were not silent or silenced. Like scientists elsewhere in the world, we are still groping towards the best ways to communicate, but the process

has begun. To those in the thick of a battle to mobilize popular opinion the pace of change frequently seems far too slow, but from an objective stance this conclusion is not always correct. My conversations with taxi-drivers — those useful barometers of public opinion — around Australia over the past year or so convince me that important shifts in environmental perceptions are taking place at an astounding rate. We might believe the media on this score too. I wouldn't pretend that *everything* is rosy, but I'm not yet ready to give way to despair. Let us hope that Harry Recher doesn't either.

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Wildlife conservation in Australia: the view of a marine ecologist

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While supporting Recher (1990), I would like to expand on the points made by him on the needs to conserve and manage Australian estuarine ecosystems, in particular estuarine wetlands (saltmarsh, mangroves and seagrass beds).

Successive Federal and State Governments (e.g., 1981 House of Representatives Standing Committee on Environment and Conservation; New South Wales Government submission to the Inquiry to Review the Protection of the Australian Coastal Environment by the House of Representatives Standing Committee of Environment, Recreation and the Arts, Sydney, October 1989, two of at least seven Federal enquiries; New South Wales Government Inquiry into Coastal Management currently being prepared by New South Wales Cabinet Office, due for release June 1990; New South Wales Legislative Council Standing Committee on State Development-Coastal Developments in New South Wales currently underway etc.) have commissioned enquiries into

coastal zone management and development. In addition Coastal Management Conferences have been initiated (for example The National Conference on Coastal Management, October, 1986). It appears that little action has been undertaken to resolve the problems highlighted by each of these enquiries or Conferences. Although the recent creation of the Resource Assessment Commission and their decision to set up an enquiry into the coastal zone headed by Justice Stewart by the Australian Government may be in response to the pressing need to manage our coastal resources. One could suggest that the most common response to these enquiries is to suggest yet another enquiry.

In New South Wales legislation (Environmental Planning and Assessment Act 1979; and SEPP No. 14 which covers the estuarine wetlands within the state which are recognized as being in good condition) does exist to protect and manage our scattered wetlands. The SEPP No. 14 makes it mandatory for an EIS to be prepared